

## **What's in the pipe? Tar sands, Oil Sands, Diluted Bitumen?**

- TransCanada has refused to release the composition of the substance that it would put in the pipe, claiming the information is “proprietary,” but we do know it will be a diluted bitumen substance, often nicknamed tar sands. The company prefers to call it oil sands to distract from the thick, gritty nature of the substance.
- Bitumen is a semisolid, degraded form of oil that will not flow at normal temperatures and pressures.
- This tar sands substance is far more corrosive, thanks in part to the sand that settles in the bottom of pipes and deflects anti-corrosion chemicals away from the metal they are intended to protect.
- Most bitumen contains sulphur and several heavy metals such as nickel, vanadium, lead, chromium, mercury, arsenic, selenium and other toxic elements.
- Other chemicals are necessary for pipeline integrity, like corrosion inhibitors and drag reducing agents. Also, special thinning agents and diluents would be added to aid in reducing the heavy crude's viscosity for pipeline transportation.
- Benzene is an extremely flammable liquid and vapor. Exposure can cause anemia and increased risk of cancer. One teaspoon of benzene can contaminate 260,660 gallons of water. This project would cross countless bodies of water and aquifers.
- Hydrogen sulfide is an extremely toxic and flammable gas that would be in the pipe.
- Toluene can cause problems with the nervous system, kidneys and liver.
- Ethyl benzene can cause problems with the liver and kidneys.
- Xylene can cause damage to the nervous system.